



Environmental and Planning Consultants

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March 30, 2010

Ben Margolis
Vice President – Development
New York City Economic Development Corporation
110 William Street • New York, NY 10038

Block 1780

Re: Wetland Inspection – Lots 112 and 95 –Bloomfield Avenue and Chelsea Road, Staten Island, N.Y.

Dear Mr. Margolis:

The following letter report describes the results of a wetland site inspection of Lots 95 and 112 at the intersection of Bloomfield Avenue and Chelsea Road, Staten Island, N.Y. This site inspection was conducted by AKRF on March 17th, 2010 to determine the presence/absence of wetland indicators meeting the 1987 Corps of Engineers Wetlands Delineation Manual criteria (TR Y-87-1). Field inspection findings and the applicability of Federal and State wetland regulations are discussed below.

Summary of Findings:

AKRF found vegetation and hydrology indicators meeting the 1987 Corps of Engineers Wetlands Delineation Manual (TR Y-87-1) within both parcels (lots 95 and 112), hereafter referred to as “the project site”. Wetland indicators were found generally throughout the areas mapped as wetland by the U.S. Fish and Wildlife Service’s National Wetlands Inventory (NWI). Hydrologic connections to adjacent freshwater and tidal wetlands were evident in the field. As such, a majority of both lots constitute federally-regulated wetland, subject to U.S. Army Corps of Engineers (USACE) verification.

The project site (lots 95 and 112) is not mapped as New York State Department of Environmental Conservation (NYSDEC) freshwater wetland itself. However, the site is within the 100-foot regulated “adjacent area” of NYS freshwater wetland AR-48.

Development or disturbance to lots 95 and 112 would require preparation of a Joint Permit Application submitted to the USACE and NYSDEC and permitting from these agencies in accordance with the Clean Water Act Section 404. Should this be pursued, a formal wetland delineation will be required to demarcate the exact wetland boundaries on the subject parcels.

Onsite Wetland Conditions:

AKRF examined wetland vegetation and hydrology indicators for the purpose of making a preliminary determination of wetland conditions onsite during the non-growing season. AKRF’s investigation confirms the presence of these wetland indicators over most of the site.

Much of the site was observed to be inundated with 0.25 to 2.0 feet of water at the time of site inspection. Inundation is termed a "primary indicator" of the Federal wetland hydrology criteria. A larger ponded region in the center of the north lot (Lot 112) was observed (Photo 4) and is seen to be persistent in aerial photographs, as shown in Figure 4. Surface water was observed moving from the center of the site as sheetflow westwards across Chelsea Road to estuarine wetlands (NYS Wetland AR-48) which eventually flow to the Arthur Kill at the western shore of Staten Island.

Dominant facultative wetland plants observed on the project site include common reed (*Phragmites australis*), pin oak (*Quercus palustris*), red maple (*Acer rubrum*), groundsel bush (*Baccharis halimifolia*), red-osier dogwood (*Cornus stolonifera*), cottonwood (*Populus deltoides*), gray birch (*Betula populifolia*), highbush blueberry (*Vaccinium corymbosum*), pussy willow (*Salix discolor*), Viburnum (*Viburnum sp.*), bayberry (*Morella pensylvanica*), switchgrass (*Panicum virgatum*), sensitive fern (*Onoclea sensibilis*). This assemblage of plants meets the Federal wetland vegetation criteria. Upland areas are limited to the periphery of the project site and incidental areas of fill exhibiting rolling topography on the eastern and southern portions of the site closest to offsite landscaping, soil stockpiling, and equipment storage areas. Japanese knotweed (*Polygonum cuspidatum*), paulownia (*Paulownia tomentosa*), and cottonwood (*Populus deltoides*) were most prevalent in upland areas. A longer list of vegetation would be evident during the growing season.

Federally regulated wetlands are identified in the field by examination of vegetation, soils, and hydrology. As a preliminary wetland inspection, conducted during the non-growing season, onsite soils were not examined as part of AKRF's 3/17/10 site inspection. Examination of soils is a more time-consuming process that would be necessary to define the exact boundaries of onsite wetlands and would be included as part of a formal wetland delineation conducted during the growing season. Examination of the more readily observable vegetation and hydrology indicators are adequate to make a wetland presence/absence determination and an estimate of wetland size. Judging by the predominance of hydrophytic vegetation and hydrology indicators, it is expected that much of the site would meet the Federal hydric soils criteria.

Mapping Information – Soils and Wetlands:

This region of Staten Island was historically tidal marsh and now contains a mixture of natural and anthropogenic soils with evidence of fill and disturbance. The project site is mapped as "Laguardia-Ebbets-Pavement & buildings, wet substratum complex, 0 to 8 percent slopes" soil by the NRCS.¹ These are nearly level to gently sloping areas filled with a mixture of natural soil materials and construction debris over swamp, tidal marsh, or water. The project site is bordered by "Ipswich-Pawcatuck-Matunuck mucky peats", consisting of low lying areas of tidal marsh that are inundated by salt water twice each day at high tide, with a mixture of very poorly drained soils which vary in the thickness of organic materials over sand.

As shown in Figure 1, much of the project site is mapped as wetland by the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI). The NWI maps wetlands based on interpretation of aerial photography and categorizes them based on vegetation, landscape position, and hydrologic regime. Specifically, the wetland types mapped onsite are:

1. E2EM5P: estuarine, intertidal, emergent, phragmites, irregularly flooded
2. PFO1R: palustrine, forested, broad-leaved deciduous, seasonal-tidal
3. E1UBL: estuarine, subtidal, unconsolidated bottom, subtidal

¹ NYC Reconnaissance Soil Survey, NRCS, 2004.

Site inspection generally confirms these wetland types. However, confirmation of tidal influences on the site's wetlands would require subsequent site inspections at the time of the twice-monthly spring high tide.

The project site is not mapped as NYSDEC tidal or freshwater wetland. As shown in Figure 2, the closest NYS-mapped freshwater wetland is Wetland AR-48 located immediately west of the site across Chelsea Road. As shown in Figure 3, the closest NYS-mapped tidal wetland is located approximately 375 feet south of the project site.

Regulatory Issues – Preliminary Assessment:

A land use action on the subject parcel will require environmental review under CEQR. As an undeveloped site, foremost among such issues would be potential impacts to wetlands, natural communities, or threatened and endangered species. Separate regulatory programs applicable to the project site are described below.

Federal Wetland Regulations – Clean Water Act Section 404:

Section 404 of the Clean Water Act (CWA) regulates disturbance to Federal wetlands. An onsite wetland delineation conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual (TR Y-87-1) is necessary to demarcate the boundaries of wetlands subject to federal jurisdiction. As discussed above, much of the site exhibits positive indicators for wetland vegetation and hydrology and is expected to be subject to regulation under this program by the U.S. Army Corps of Engineers (USACE).

Recent Federal guidance also requires that wetlands subject to CWA Section 404 must be connected, adjacent to, or exhibit a "significant nexus" to other regulated "waters of the U.S.". As discussed above, surface water was observed flowing from the project site to adjacent tidal wetlands clearly regulated as "waters of the U.S." In addition, tidal wetland minnows, either mummichog (*Fundulus heteroclitus*) or striped killifish (*Fundulus majalis*), were observed by AKRF within flooded portions of the project site. Such evidence strongly suggests connections to adjacent waters that subject the project site to CWA Section 404 jurisdiction.

Development of the project site or a significant portion of it would require a permit from the USACE. Projects requiring a minimum amount of wetland disturbance may qualify for a Nationwide Permit (NWP). The NWP that may apply the project site is "NWP #39: Commercial and Institutional Developments". This permit authorizes discharges (wetland fill) of up to ½ acre of non-tidal waters. However, the overall project site contains more wetland acreage than this. The NWI-mapped wetlands on the subject parcels are roughly 275,000 square feet (6.3 acres) in size total. Disturbance to more than ½ acre of wetlands would require an "individual permit". Unlike a NWP, an "individual permit" is a more lengthy process of agency evaluation requiring public review.

In either case, the USACE will require demonstration that wetland impacts cannot be avoided or minimized while still accommodating a proposed project. Mitigation for unavoidable wetland impacts may be considered by the USACE in the form of creating or restoring wetlands in proximity to the area of wetland loss, often at a higher ratio (2 acres created: 1 acre disturbed).

NOTE: Site inspection reveals that a portion of lot #95 has been cleared and filled recently (within the past year) as shown in Photos 5, 6, and 7. This fill may have been placed within an area meeting the Federal wetland definition on the basis of surrounding vegetation and hydrology. As such, this activity may constitute a violation of CWA Section 404. It is advised that NYCEDC notify the adjacent property owners/users in order to stop and remedy the situation.

NYS Tidal Wetland Regulations (6 NYCRR Part 661):

The project site is not mapped as tidal wetland by the NYSDEC and is not within the 300 foot tidal wetland "adjacent area". The closest tidal wetland is mapped approximately 375 feet south of the project site, as shown in Figure 3. Therefore, the site is unlikely to be regulated by the NYS tidal wetlands program.

NYS Freshwater Wetland Regulations (6 NYCRR Part 663):

The project site is located within 100 feet of NYS-mapped Freshwater Wetland AR-48. Therefore, a permit for disturbance within the regulated 100-foot "adjacent area" would be required in accordance with this regulatory program if the site is developed. Although the project site is not mapped as a NYSDEC wetland, it should be noted that NYS freshwater wetland maps show the approximate boundaries of the wetland identification number (e.g. AR-48) assigned to each wetland. The project site's wetlands are located in close proximity to and are hydrologically connected to NYS Wetland AR-48. In such cases the NYSDEC may take jurisdiction of substantially contiguous wetlands areas.

Stormwater Regulations- State Pollutant Discharge Elimination System (SPDES) program:

Site inspection revealed that the adjacent materials recovery business, involving the stockpiling of soil/fill/gravel, exhibited poor erosion control housekeeping on the day of inspection. Although not directly related to the wetland inspection task AKRF conducted, this adjacent land use is having a deleterious effect on the wetlands and waters of the project site. Photos 1, 2, and 3 show sediment entering the project site which may constitute a violation of NYS regulations governing erosion and sediment control and the water quality protection provisions of the Federal CWA. Erosion control measures along the periphery of this adjacent property are largely lacking. The applicable NYS stormwater permit that would apply to this activity on the adjacent property is "GP-0-06-002 SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity". The adjacent business may also have permits from NYSDEC for C&D materials handling (6NYCRR Part 360) and from NYC Department of Sanitation as a Transfer Station.

In light of the fact that erosion/sedimentation is affecting NYSED's property (the project site), NYCEDC may choose to contact the adjacent property owner/user to notify them that they may be in violation of stormwater regulations.

NYS-listed Threatened and Endangered Species (ECL 11-0535, 6NYCRR Part 182):

The NYSDEC Environmental Resources Mapper indicates that there are known occurrence of NYS-listed plant and animal species in the vicinity of the project site. Should a land use action be proposed on the site, correspondence from the New York Natural Heritage Program (NYNHP) would be obtained as part of CEQR review. The NYNHP would provide a list of threatened, endangered, or special concern species known for the project site and vicinity based on past records of occurrence. At that time, targeted threatened and endangered species investigations may be necessary.

AKRF is aware that the site is adjacent to an area known to support southern leopard frog (*Rana sphenoccephala utricularius*), a NYS "special concern" species and a "species of greatest conservation need" designated by NYSDEC (Feinberg 2010).² Other NYS-listed species are known for this area of Staten Island.

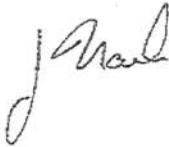
² Feinberg, J. 2010. Personal communication between Dr. Jeremy Feinberg (Rutgers University) and Dr. Andrew Bernick (AKRF) on 30 March 2010 regarding presence of Southern Leopard Frog (*Rana sphenoccephala*) population at Chelsea and River Roads in Staten Island, NY.

Recommendations:

Should the New York City Economic Development Corporation (EDC) wish to pursue a land use action on the project site, the preferred time period to conduct a Federal wetland delineation is between June 1st and September 30th. Although the USACE will accept delineations conducted during the full growing season which extends beyond this range, the summer and early fall seasons offer the best opportunity to accurately document wetland conditions.

AKRF is available to assist EDC with agency coordination and permit preparation should you require these services in the future. Please don't hesitate to call me if you have further questions at 914-922-2367.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Nash'.

James Nash
Technical Director

cc: F. Jacobs (AKRF)

Figure 1: NWI Mapped Wetlands



Figure 2: NYSDEC Mapped Freshwater Wetlands

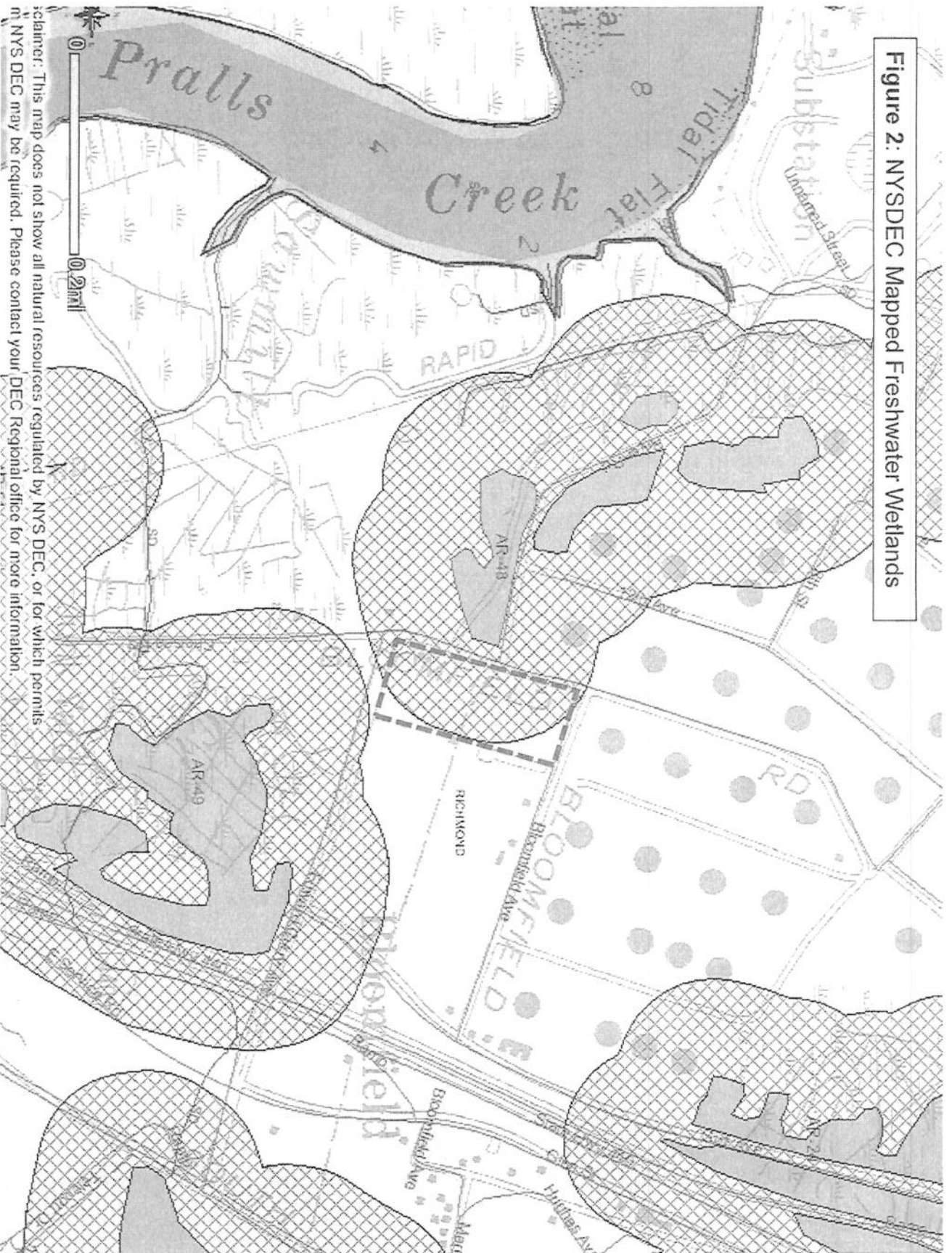
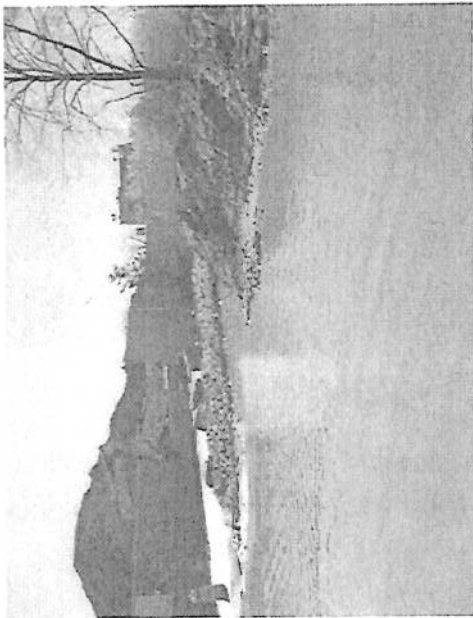


Figure 3: NYS-Mapped Tidal Wetlands

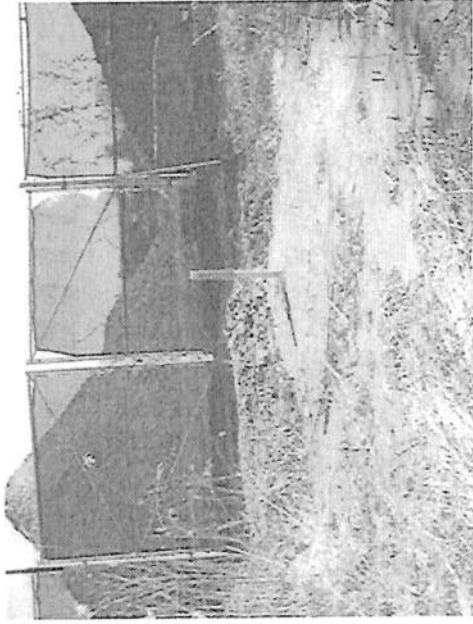


Figure 4: Aerial showing site boundary

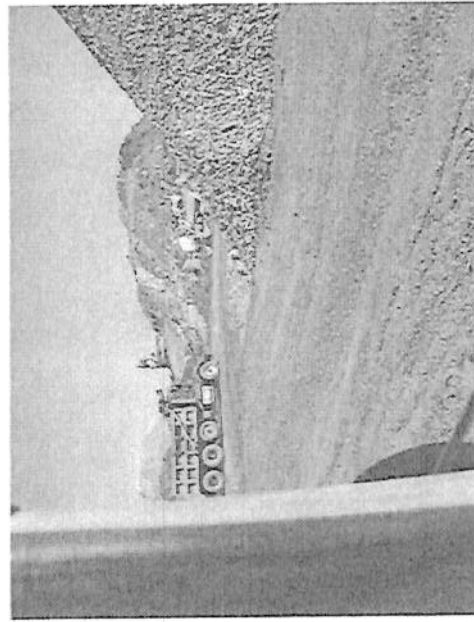




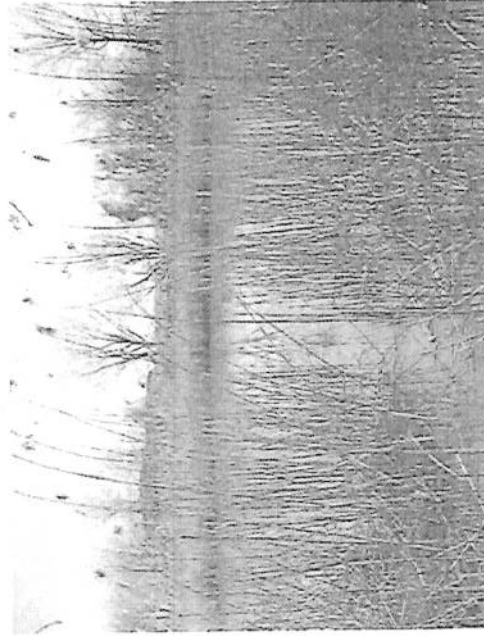
Photograph 1: East boundary of site showing adjacent materials recovery business -- water runoff conveying sediment to subject parcels.



Photograph 2: East boundary of site showing in-flow of sediment from adjacent property



Photograph 3: Offsite soil and C&D materials handling business.



Photograph 4: Open water pond onsite.



Photograph 5: West edge of area of recent clearing and fill activity (looking south).



Photograph 6: Approximate limits of recent clearing/fill.



Photograph 7: West edge of area of recent clearing and fill activity (looking north).